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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/729,836	12/06/2000	Takeshi Suganuma	1-104	9297

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EXAMINER

BROWN, VERNAL U

ART UNIT PAPER NUMBER

2635

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/729,836

Applicant(s)

SUGANUMA ET AL.

Examiner

Vernal U Brown

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18, 21-24, 26, 27 and 30-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-22, 24 30-34, and 36-40 is/are allowed.
- 6) ☒ Claim(s) 23 and 41-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/10/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to communication filed on December 12, 2004.

Response to Amendment

The examiner acknowledges the amendment of claims 23, 26, 35, the cancellation of claims 19-20, 25, 28-29, and the addition of claims 35-43.

Response to Arguments

Applicant's arguments with respect to claims 1-22, 24, and 30-34 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed December 12, 2004 have been fully considered but they are not persuasive.

Regarding applicant's argument regarding claim 35, the reference of Lesesky is relied upon for teaching the convention use of checksum to verify the integrity or identification of an information stored in memory (col. 20 lines 8-10).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23, 41, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitz U.S Patent 5473540 in view of in view of Koelle et al. U.S Patent 5802485.

Regarding claim 23, Schmitz teaches a rewriting device (50) for rewriting control information stored in an electronic control unit while communicating with an external device (col. 8 lines 36-38), the rewriting device comprising: receiving means for receiving a rewriting permission from the external device (col. 8 lines 45-48); and control information transmitting means (60) for acquiring the control information from the external device after executing predetermined processing with the electronic control unit in response to the rewriting permission, and transmitting the control information to the electronic control unit (col. 8 lines 36-41). Schmitz is however not explicit in teaching processing means for checking a match between the electronic control unit and the external device by using access information received from the external device. Koelle et al. in an art related invention in the same field of endeavor of rewriting a vehicle control unit teaches processing means (computer) for checking a match between the electronic control unit and the external device by using access information received from the external device (col. 6 lines 24-34) in order to ensure that the rewriting device is authorized to the control memory.

It would have been obvious to one of ordinary skill in the art to have a processing means for checking a match between the electronic control unit and the external device by using access information received from the external device in Schmitz as evidenced by Koelle et al. because Schmitz suggests a rewriting device is allowed to program only after it has been verified and

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Koelle et al. teaches processing means (computer) for checking a match between the electronic control unit and the external device by using access information received from the external device (col. 6 lines 24-34) in order to ensure that the rewriting device is authorized to the control memory.

Regarding claim 41, Schmitz teaches the rewriting device is provided apart from the electronic control unit (figure 4).

Regarding claim 42, Schmitz teaches the control center is located remotely from the electronic control unit mounted in the vehicle and from the rewriting device (figure 4).

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitz U.S. Patent 5473540 in view of in view of Berra US Patent 5787367.

Regarding claim 26, Schmitz teaches a control information rewriting system for a vehicle comprising:

an electronic control unit mounted (16) in the vehicle for vehicle control and having control information stored in an electrically rewritable nonvolatile memory for vehicle control (col. 1 lines 61-66, col. 2 lines 51-52);
a rewriting device (50) connectable to the electronic control unit for rewriting the control information stored in the electrically rewritable nonvolatile memory (col. 8 lines 4-8);
and a control center (12) for performing data communication with the rewriting device and for storing access information required by the rewriting device to rewrite the

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control information in the electronic control unit (col. 8 lines 45-54). Schmitz is however silent on teaching the rewriting device converts data received from the electronic control unit based on the access information received from the control center and transmits the converted data to the electronic control unit to enable the electronic control unit to determine whether the rewriting device is legitimate. Berra in an art related in an art related reprogram able security for vehicle computer teaches a rewriting device receiving encrypted data from the control center based on access information (col. 4 lines 37-50). Berra also inherently teaches the rewriting device converting the received in order to transmit data over SCI to the control unit (col. 4 lines 20-23).

It would have been obvious to one of ordinary skill in the art for the rewriting device converts data received from the electronic control unit based on the access information received from the control center and transmits the converted data to the electronic control unit to enable the electronic control unit in Schmitz as evidence by Berra because Schmitz suggests a rewriting device connectable to the electronic control unit for rewriting the control information stored in the electrically rewritable nonvolatile memory and Berra teaches a rewriting device receiving encrypted data from the control center based on access information also inherently teaches the rewriting device converting the received in order to transmit data over SCI to the control unit because Berra teaches the rewriting device receiving data and transmitting data over a different interface.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitz U.S. Patent 5473540 in view of in view of Berra US Patent 5787367 and further in view Henderson et al. US Patent 4947163.

Regarding claim 27, Schmitz in view of Berra teaches a control information rewriting system for a vehicle (col. 3 lines 65-67) but is silent on teaching the rewriting device erases the access information when rewriting of the control information is completed. Henderson et al. in an art related programming device teaches automatically erasing the programming information from the programming device after the programming has been completed (col. 17 lines 5-7).

It would have been obvious to one of ordinary skill in the art for the rewriting device to erase the access information when rewriting of the control information is completed in Schmitz in view of Berra as evidenced by Henderson et al. because Schmitz in view of Berra suggests a control information rewriting system for a vehicle having a rewriting device and Henderson et al. teaches automatically erasing the programming information from the programming device after the programming has been completed in order to secure the programming information.

Claim 35 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitz U.S Patent 5473540 in view of Lesesky et al. U.S Patent 6378959.

Regarding claim 35, Schmitz teaches a control information rewriting system for a vehicle (col. 3 lines 65-67) comprising: an electronic control unit (16) mounted in the vehicle for a vehicle control and having control information stored in electrically rewritable memory for the vehicle control (col. 5 lines 58-60); a rewriting device (20) connectable to the electronic control unit for rewriting the control information (col. 5 lines 60-61); and a control center (12) for performing data communication with the rewriting device (col. 5 lines 62-64). Schmitz also teaches running tests to determine if the controller needs reprogramming (col. 8 lines 15-20). Schmitz is however silent on teaching using a check sum to determine whether the program is

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normal. One skilled in the art recognizes that check sum is widely used to verify the integrity or identification of an information stored in memory as evidenced by Lesesky et al. (col. 20 lines 8-10).

It would have been obvious too one of ordinary skill in the art to use a check sum to determine whether the program is normal in Schmitz as evidenced by Lesesky et al. because Schmitz suggests performing a test to determine if it is necessary to upgrade the vehicle computer memory and one skilled in the art recognizes that check sum is widely used to verify the integrity or identification of a information stored in memory as evidenced by Lesesky et al.

Regarding claim 43, Schmitz teaches the control center is located remotely from the electronic control unit mounted in the vehicle and from the rewriting device (figure 4).

Allowable Subject Matter

Claims 1-22, 24, 30-34 and 36-40 are allowed.

Regarding claims 1-22 and 36-40, the prior art of reference fail to teach or suggests the control center stores identification information and associated information of the rewriting device and legitimacy determining means in communication with the rewriting device for acquiring a relationship between the predetermined identification information and the associated information stored in the storing means. The prior art of record also fail to teach or suggests

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transmitting the predetermined access information stored in the storing means to the rewriting device when the acquired relationship matches the stored relationship.

Claim 24 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 24, the prior art of record fail to teach or suggests the rewriting device transmitting identification information to the external device and the external device transmits the rewriting permission when the identification information is appropriate.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vernal U Brown whose telephone number is 571-272-3060. The examiner can normally be reached on 8:30-7:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 571-272-3068. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vernal Brown
Thursday, March 17, 2005



BRIAN ZIMMERMAN
PRIMARY EXAMINER